

[Delivering Growth: A green and digital future \(Delivering growth / A green and digital future / Policy Commissions / Labour Policymaking\)](#)

The UK is fortunate to have a strong and innovative STEM community and the Royal Society of Chemistry (RSC) represents around 50,000 members in the global chemical sciences sector, including those working in large multinational companies and small to medium enterprises, researchers and students in universities, teachers, and regulators. About 75% of these are in the UK.

Together, these scientists sit at the forefront of innovations that are delivering solutions to some of the major issues of today, from continuing to tackle the Covid-19 pandemic, to contributing to a green economic recovery.

From schools to industry, research and skills, society has a key role in supporting a green and innovative future.

The RSC is a trusted source which promotes evidence-based science policy in ensuring the UK remains resilient and is prepared for the future.

1. How can science and technology policy support growth in all regions and nations of the UK?
 - We are calling for greater regional support for science-based programmes and an increased awareness of the need for a circular economy. Science and research hold the key to our future innovation. The COVID pandemic and the war in Ukraine have taught us that we need to move away from a linear economy rooted in supply chains that rely on carbon-intensive primary raw material extraction and processing. For policy to be truly “green”, the Government must enable the green technology and circular economy sectors to thrive across the whole of the UK as we begin to transition to net zero.
 - Transitioning to a circular economy not only holds environmental benefits, but also economic benefits. A circular economy would see job creation in sectors such as remanufacturing and recycling, with the opportunity to set up new centres of expertise across the UK. We could spread significant economic opportunity across the country by creating 450,000 additional green jobs in different parts of the UK by 2035.
 - The policy environment must allow chemistry-intensive SMEs to thrive in all regions of the UK through access to funding, lab facilities and local networks of research-driven businesses. Research-driven “deep tech” SMEs are creating the technologies that will solve global challenges and thus drive UK economic growth. Science clusters with shared facilities can bring investors outside of the London-based VC sector, supporting the growth of deep tech SMEs outside the Golden Triangle.
 - Local governments, in their role of distributing UK Shared Prosperity Fund awards, must be supported by central Government to recognise the regional growth potential of universities and STEM SMEs that previously benefitted from EU structural funding.
3. How can improvements to transport deliver growth across the country, including in rural areas?

- It is important for the next Government to address transport infrastructure needs to support economic growth and achieving net zero.
 - A healthy and productive workforce is central to economic growth. Air pollution is associated with avoidable chronic health conditions and disproportionately impacts vulnerable groups, and government estimates suggest that achieving the recently set environmental target for particulate matter in England may yield improvements in air quality, resulting in a cumulative benefit of £38 billion from “reduced damage to health, productivity, ecosystems and soiling of buildings”. Furthermore, the Chief Medical Officer for England recently highlighted that transport is still one of the major emitting sectors.
 - We need policies that help us meet the environmental targets for air quality as quickly as possible, including through investment in public and active transport.
4. What policies can help deliver Labour’s existing pledges on green growth, particularly the Green Prosperity Plan?
- Labour’s Global Green Skills Report 2022 discusses how the future of work is being reimagined. We are experiencing people learning new skills and wanting to explore careers of the future. In our curriculum framework document [“The elements of a successful chemistry curriculum”](#) we highlight the importance of chemistry education in addressing local and global challenges.
 - Tackling climate change and sustainability issues are at the forefront of young people’s minds, with 79% of 11-18 year olds we surveyed for our recent [Green Shoots](#) report wanting climate change and sustainability to be a priority for the chemistry curriculum. However, this need is failing to be met. Our findings show that 87% of 11-19 educators believe there is too little content directly linking to sustainability and climate change at some stage within the chemistry curriculum. It is vital that children leaving school are not only job-ready, but also life-ready. By addressing deficiencies in the curriculum, the next Government hold the keys to ensuring our future generations are well informed, well-equipped, and skilled to work in our future green economy.
 - Policy needs to enable the green technology and circular economy sectors across the UK as we transition to net zero. We need to move away from a linear economy rooted in supply chains that rely on carbon-intensive primary raw material extraction and processing.
 - Transitioning to a circular economy will lead to job creation in sectors such as remanufacturing and recycling and put our industries on a globally competitive footing. We could spread significant economic opportunity across the country by creating 450,000 additional green jobs in different parts of the UK by 2035.
5. What policies can help contribute to the four missions outlined in Labour’s industrial strategy?
- Research and innovation underpin all four of these missions and will be key to delivering growth in all parts of the UK. We need a clear, long-term investment plan for research and innovation to drive productivity and growth. This would also raise

living standards, which will benefit individuals and communities across the whole of the UK as well as provide the tools to address these missions.

- For the UK to be successful, international collaboration is crucial. Associating to Horizon Europe and future European Framework Programmes is therefore critical. The international networks and collaborations that European Framework Programmes facilitate are unparalleled and irreplaceable and Labour should seek association to Horizon Europe and other EU research programmes at the earliest opportunity.
 - If we want policy to deliver clean power by 2030, we need to deploy renewable energy generation, energy storage systems and electrification of transport widely. This will lead to a dramatic rise in demand for the critical materials underpinning these technologies; environmental pressures created by material extraction and processing; and a downstream increase in currently difficult-to-manage waste.
 - We need coherent and harmonised long-term policies that support innovation and more circular approaches in this area, including investment in domestic recycling infrastructure. This will help us move to a circular economy for critical minerals in which we work towards greater resource efficiency and use of secondary raw materials recovered from end-of-life electric vehicle batteries, solar panels, and wind turbines, as well as from waste electrical and electronic equipment.
 - To prosper as a country and build a resilient future for the UK, we need sustainable supplies of materials. These include not only the critical minerals we require to achieve greater renewable energy coverage and to scale up low-carbon transport, but also the materials that form the foundations of the UK manufacturing and construction sectors (e.g., steel and cement).
 - We have a unique policy opportunity to position the UK as a global champion for a more integrated approach to these materials that maximises resource efficiency while minimising environmental impacts. We need to put in place a long-term materials strategy that is coordinated across government and across the economy to ensure more resilient supply chains, help retain jobs linked to currently carbon-intensive material production and develop new low-carbon jobs, many of which will be held by chemistry-using professionals.
6. What are the specific implications of policy proposals in this area for (a) women, (b) Black, Asian and minority ethnic people; (c) LGBT+ people, (d) disabled people and (e) all those with other protected characteristics under the Equality Act 2010?
- In efforts to ensure that science and technology policy support growth across the UK, it's important that alongside a regional spread of opportunities a step change is made in the diversity of people who can make use of such opportunities.
 - RSC research into the structural barriers to inclusion of women and minoritised ethnicity groups in the chemical sciences has identified an unsupportive academic culture, unequal access to funding and narrow definitions of success as systemic barriers to the retention and progression of these groups. [\[Reference: https://committees.parliament.uk/writtenevidence/42479/html/\]](https://committees.parliament.uk/writtenevidence/42479/html/)
 - While the UK has started to make progress on addressing some of these barriers, momentum has slowed down and much remains to be done. Concrete next steps should include i) an evaluation of the extent to which objectives in the current R&D people and culture strategy have been met or are on track to be met, ii) using this evaluation as a starting point for a longer-term strategy that sets out next steps to

fully lift key barriers, and iii) bringing together UK Government, leaders in diversity and inclusion, and organisations in the research and innovation landscape to develop and see through a concrete implementation plan for delivery of this longer-term strategy, including concrete KPIs.

7. What consideration would need to be given to policy proposals in this area when collaborating with devolved administrations and local governments in England, Scotland, Wales, and Northern Ireland?
 - The RSC are calling for the next Government to support local governments in their role of allocating regional development funding to research and innovation or replace any shortfall in funding levels compared to before EU exit, to ensure regions and nations don't lose out on its benefits. Evidence shows that using regional development funding for research and innovation supports sustainable growth in regional economies and it enables local businesses to harness the power of research and innovation, knowledge, and infrastructure
(<https://www.rsc.org/contentassets/8122a7694dd14a4f9779cec4e9dbb0a6/workforce-full-report>)